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EXAMINER
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PALABRICA, RICARDO J

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte FRANCIS YU-HEI TSANG, TRISTAN DIETER JUERGENS,  
YALE DEON HARKER, KWAN SZE KWOK, NATHAN NEWMAN, and  
SCOTT ARDEN PLOGER

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Appeal 2009-012440  
Application 10/720,035  
Technology Center 3600

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Before ALLEN R. MacDONALD, DENISE M. POTHIER, and  
DAVID M. KOHUT, Administrative Patent Judges.

MacDONALD, Administrative Patent Judge.

Opinion Concurring filed by POTHIER, Administrative Patent Judge

DECISION ON APPEAL

## STATEMENT OF CASE

### Introduction

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 23-25, 27-29, and 79-82. We have jurisdiction under 35 U.S.C. § 6(b).

### *Examiner's Rejections*

The Examiner rejected claims 23-25, 27-29, and 79-82 under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement.

The Examiner rejected claims 23-25, 27-29, and 79-82 under 35 U.S.C. § 112, second paragraph as failing to point out and distinctly claim the invention (i.e., unclaimed essential matter).

### Exemplary Claim

Exemplary independent claim 23 under appeal read as follows:

23. A nuclear voltaic cell configured to generate an electrical current, comprising;
  - a first metal contact layer having a first side;
  - a second metal contact layer having a first side, wherein said first side of said second metal contact layer is positioned facing said first side of said first metal contact layer and forms a channel between said first and second metal contact layers;

a liquid semiconductor located within said channel and in contact with said first side of said first metal contact layer and in contact with said first side of said second metal contact layer, wherein said liquid semiconductor contains a radioactive isotope in solution and said first side of said first metal contact layer forms a Schottky contact with said liquid semiconductor, and said first side of said second metal contact layer forms a low resistance or ohmic contact with said liquid semiconductor, and wherein said liquid semiconductor comprises at least one chalcogen, said chalcogen selected from the group consisting essentially of sulfur, selenium and tellurium; and

an electrical circuit connecting said first metal contact layer to said second metal contact layer.

#### Appellants' Contention

Appellants contend for multiple reasons that the Examiner erred in rejecting the claims under 35 U.S.C. § 112, first and second paragraphs.

#### ANALYSIS

We agree with Appellants' contention. See Br. 11-24.

#### CONCLUSIONS

(1) Appellants have established that the Examiner erred in rejecting claims 23-25, 27-29, and 79-82 as being unpatentable under 35 U.S.C. § 112, first and second paragraphs.

(2) On this record, claims 23-25, 27-29, and 79-82 have not been shown to be unpatentable.

DECISION

The Examiner's rejections of claims 23-25, 27-29, and 79-82 are reversed.

REVERSED

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POTHIER, Administrative Patent Judge, CONCURRING:

I concur with the majority's decision but write separately to emphasize that the Examiner has not sufficiently demonstrated the disclosure fails to teach an ordinarily skilled artisan how to make the use the claimed invention as required by 35 U.S.C. § 112, first paragraph. Particularly, the Examiner needs to show that the Specification does not teach an ordinarily skilled artisan "how to make and use the full scope of the claimed invention without 'undue experimentation.'" See *In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993). As Appellants states (Br. 15, 17-18), the Examiner has not met his initial burden of considering and weighing all the evidence related to the factors used to support a determination that disclosure does not satisfy the enablement requirement and that the experimentation to make and use the invention is undue. See *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988); see also the Manual of Patent Examining Procedure (MPEP) § 2164.01(a) (indicating "[t]he examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole.") and § 2164.04.